

Interagency Performance Evaluation Task Force (IPET)

Summary & Status

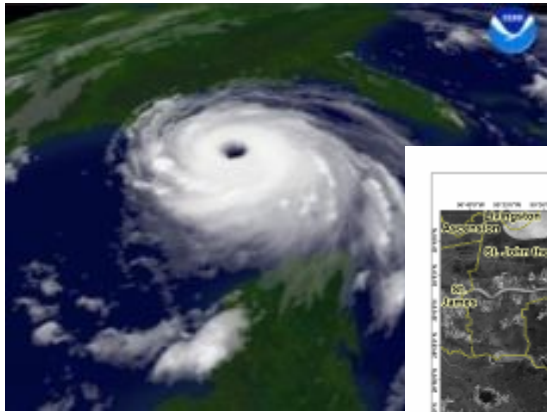
Dr. Ed Link, Director



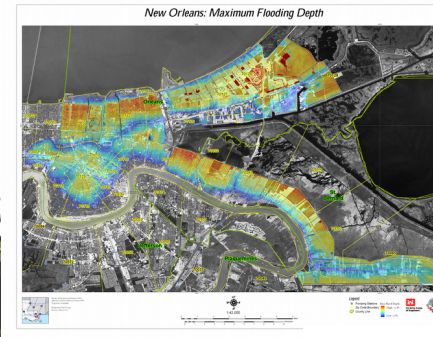
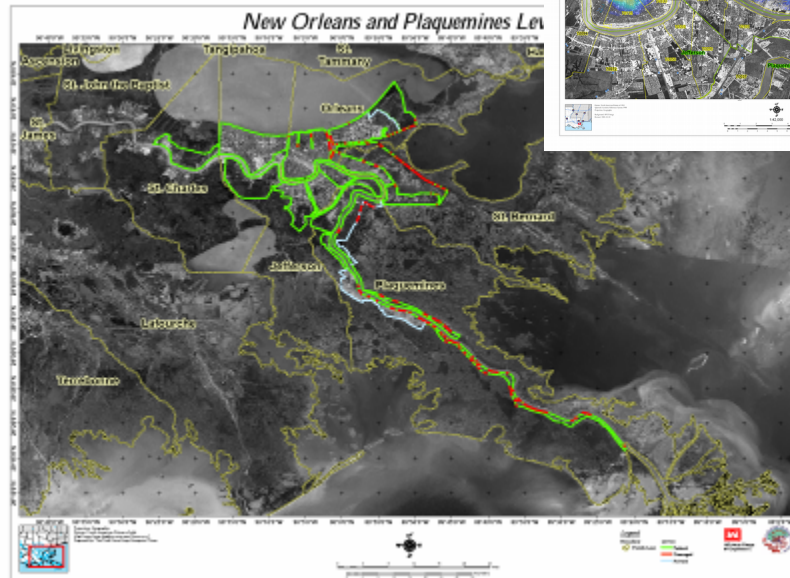
IPET Mission

Scientific Analysis and Risk Based System Wide Assessment

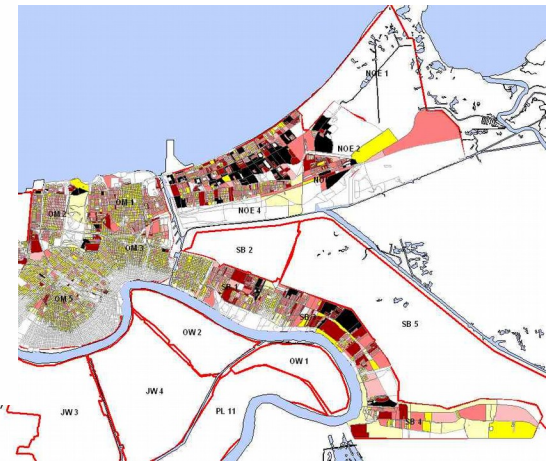
HAZARD



SYSTEM



CONSEQUENCES



Results are
"in the Ground"

IPET Final Report

Volume	Status
VOL I Executive Summary And Overview	DOJ for Release of Interim Final 31 Jan
VOL II Geodetic Vertical and Water Level Datums	DOJ for Release of Final 31 Jan
VOL III The Hurricane Protection System	Draft Final in edit, Release expected by 15 Feb
VOL IV The Storm	Draft Final in edit, Release expected by 15 Feb
VOL V The Performance - Levees and Floodwalls	Draft Final in edit, Release expected by end Feb
VOL VI The Performance - Drainage and Pumping	Draft Final being completed, Release expected by end of Feb
VOL VII - The Consequences	DOJ for release of Final by 31 Jan
VOL VIII - The Risk and Reliability Analysis	Draft Final being prepared, initial release by early Mar, final by Jun
VOL IX - Appendices	DOJ for Release by 31 Jan



US Army Corps
of Engineers

Performance Evaluation of the New Orleans and Southeast Louisiana Hurricane Protection System

Final Report of the Interagency Performance Evaluation Task Force

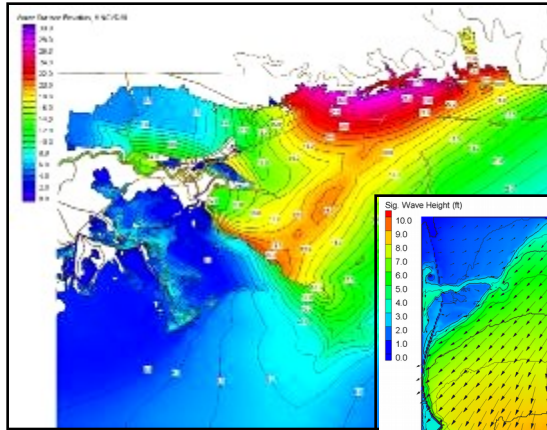
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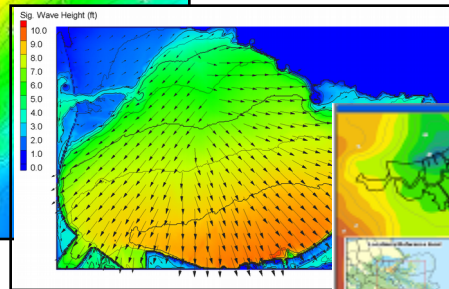
The Hazard



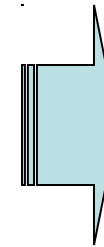
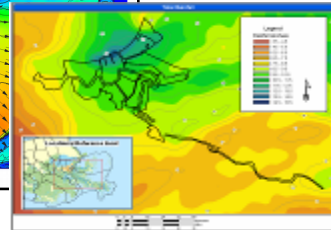
Surge



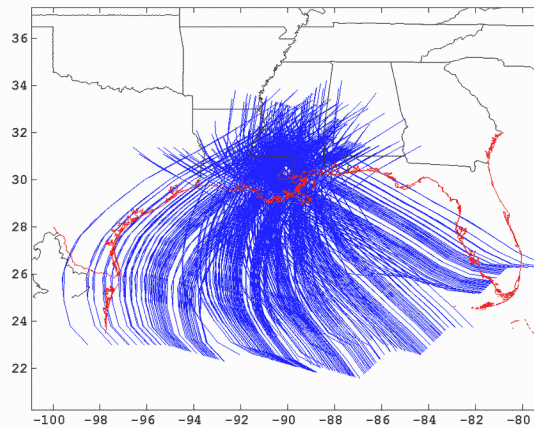
Waves



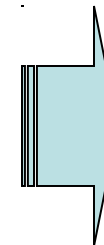
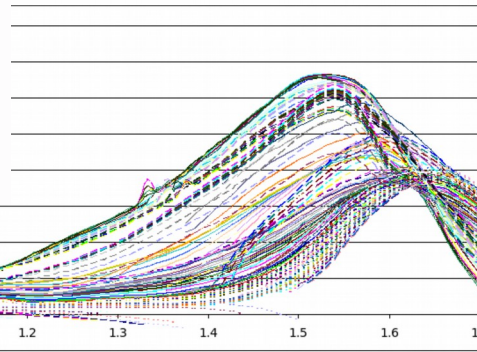
Rain



***Katrina Time
History of
Forces by
Locale***



***Central Pressure
Max Winds
Radius to max winds
Speed
Track***



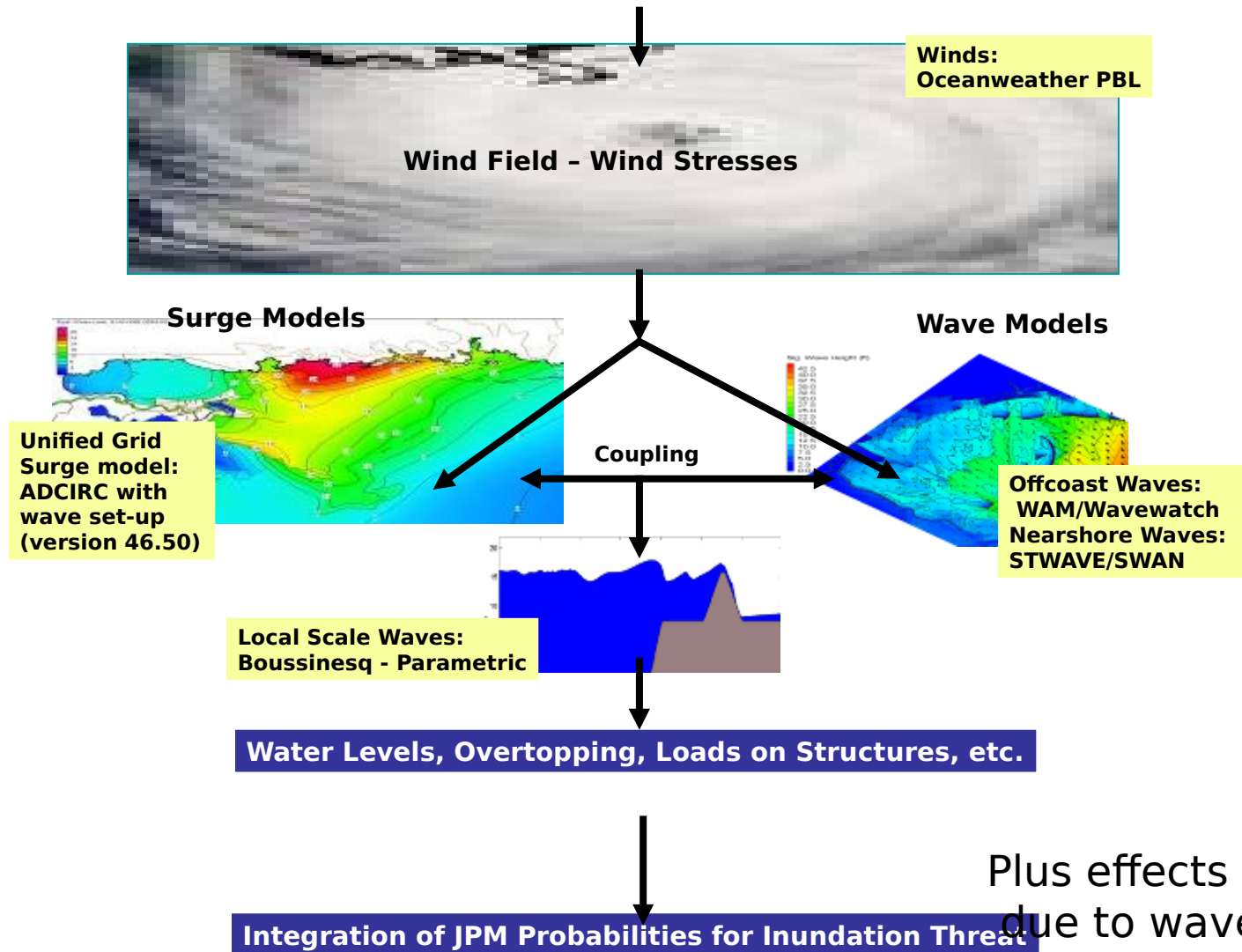
***Probability of
Surge and
Wave Levels
by Locale***

System Wide Assessment Forensic Analysis

***Issues:
Climate Dynamics
Coastal Dynamics***

Joint Probability Method - Optimum Sampling

Probability Characteristics for Set of PBL Parameters and Tracks
(including potential climate variability)



NOAA chart with storms versus intensity only

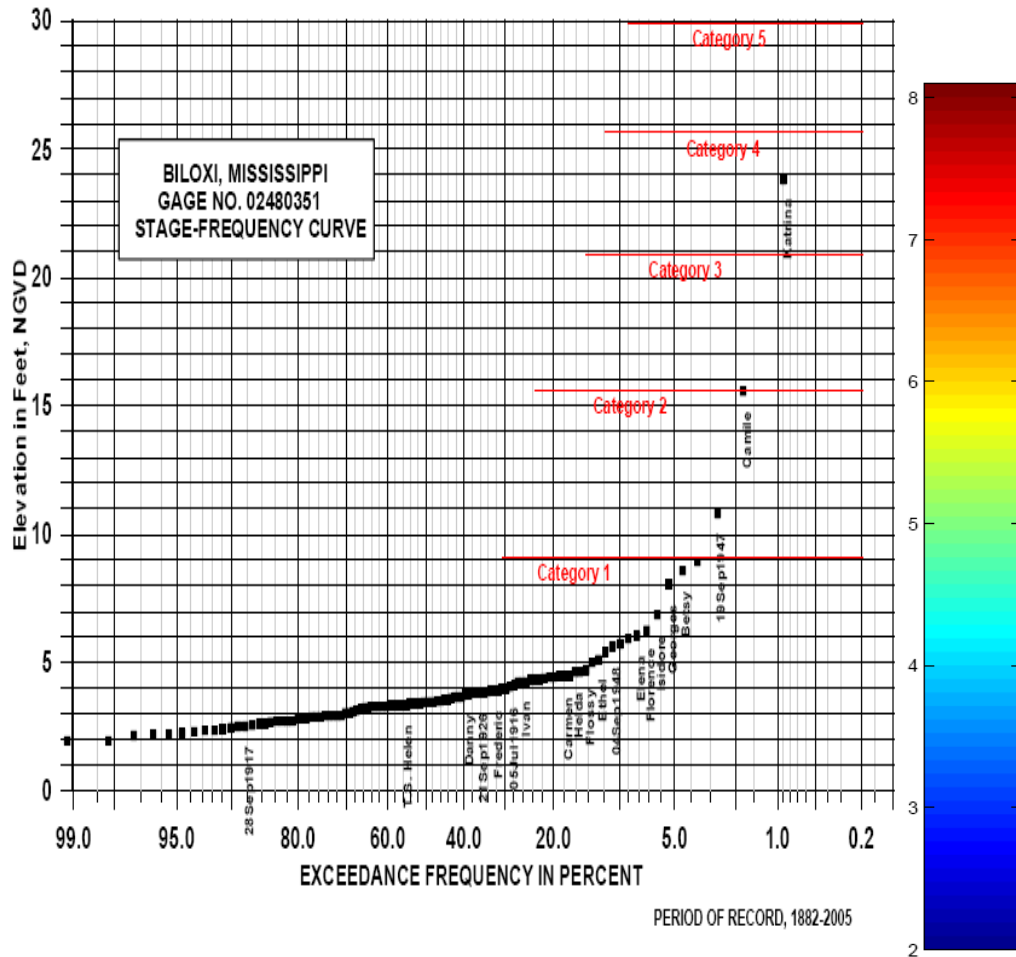
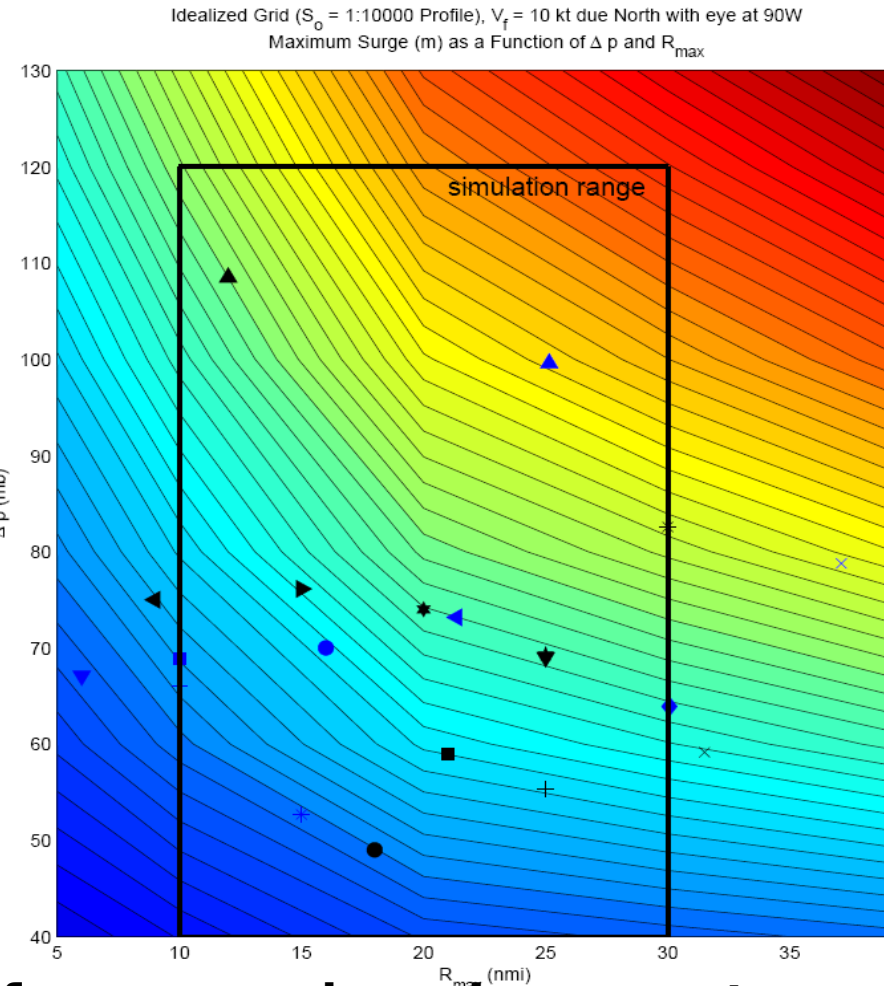
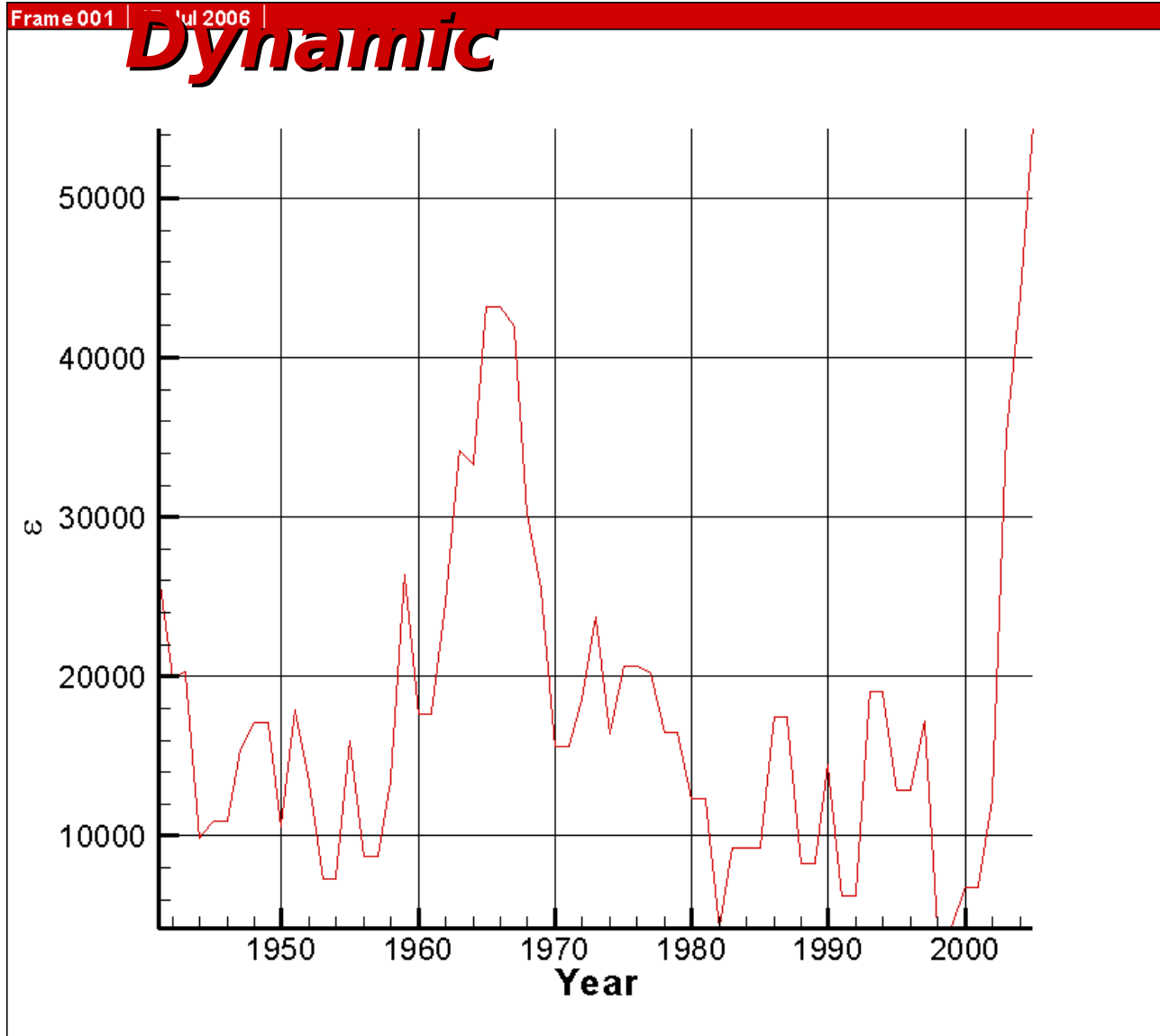


Chart from ADCIRC simulations showing that both intensity and size affect surges at the coast

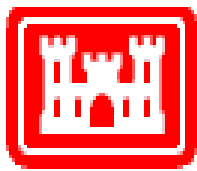


2 primary dimensions for estimation of surge maxima along coast: m Intensity and Storm Size. Katrina is about a 400-year storm and Rita is about a 90-year storm in their areas of maximum effect

The Hazard is Dynamic



Plot of estimated cumulative kinetic energy for all storms: 1941-2005.



The System

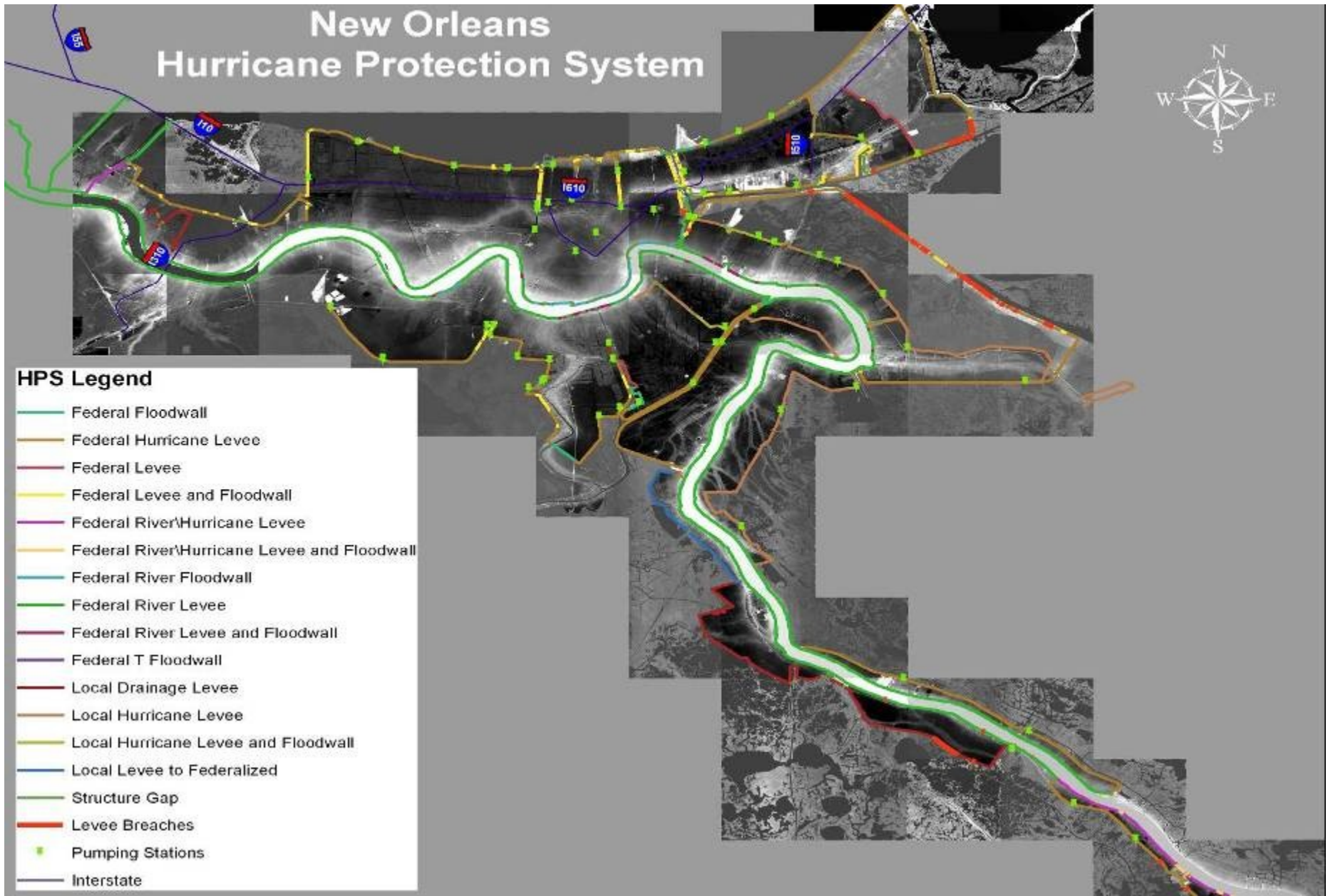


New Orleans Hurricane Protection System

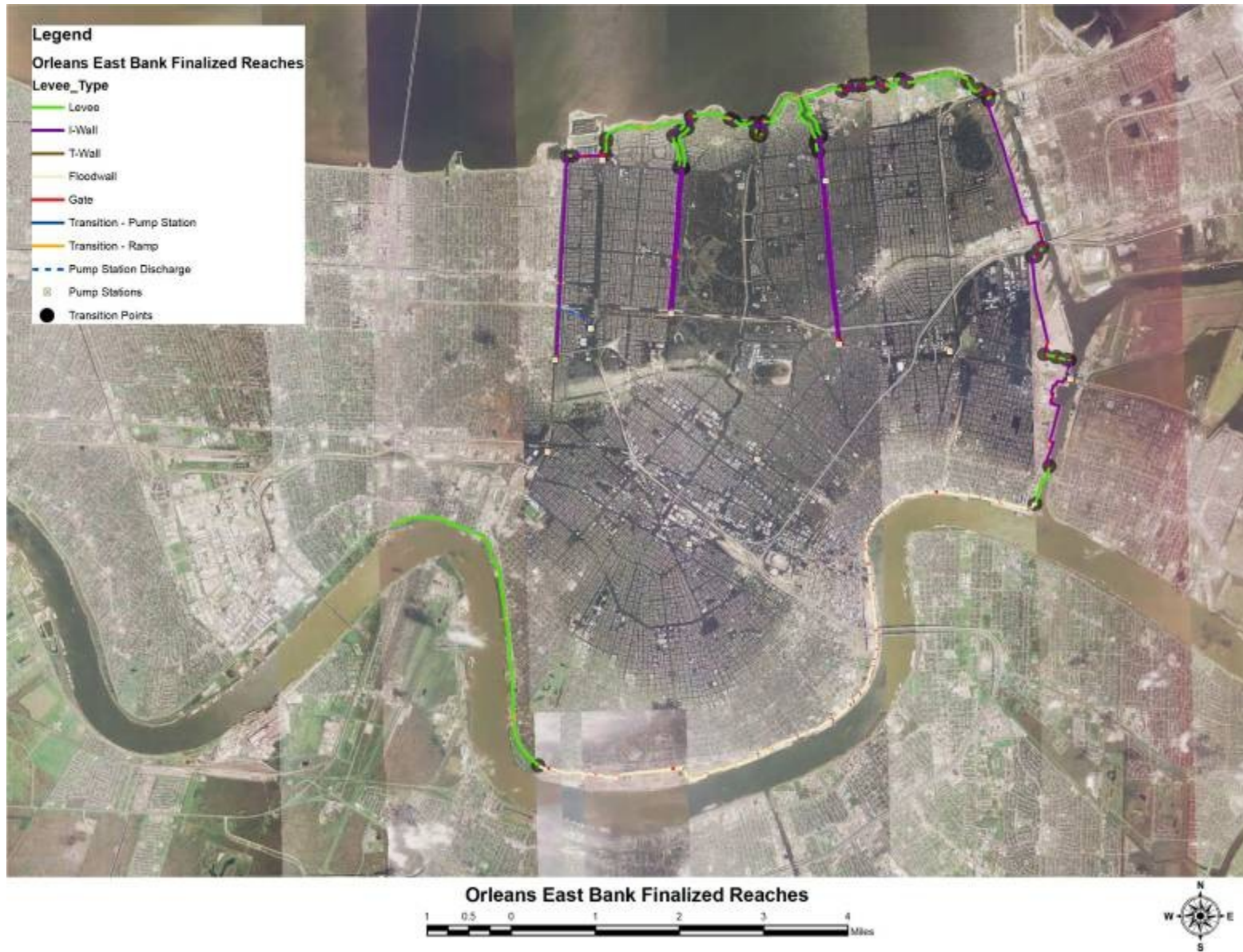


HPS Legend

- Federal Floodwall
- Federal Hurricane Levee
- Federal Levee
- Federal Levee and Floodwall
- Federal River/Hurricane Levee
- Federal River/Hurricane Levee and Floodwall
- Federal River Floodwall
- Federal River Levee
- Federal River Levee and Floodwall
- Federal T Floodwall
- Local Drainage Levee
- Local Hurricane Levee
- Local Hurricane Levee and Floodwall
- Local Levee to Federalized
- Structure Gap
- Levee Breaches
- Pumping Stations
- Interstate



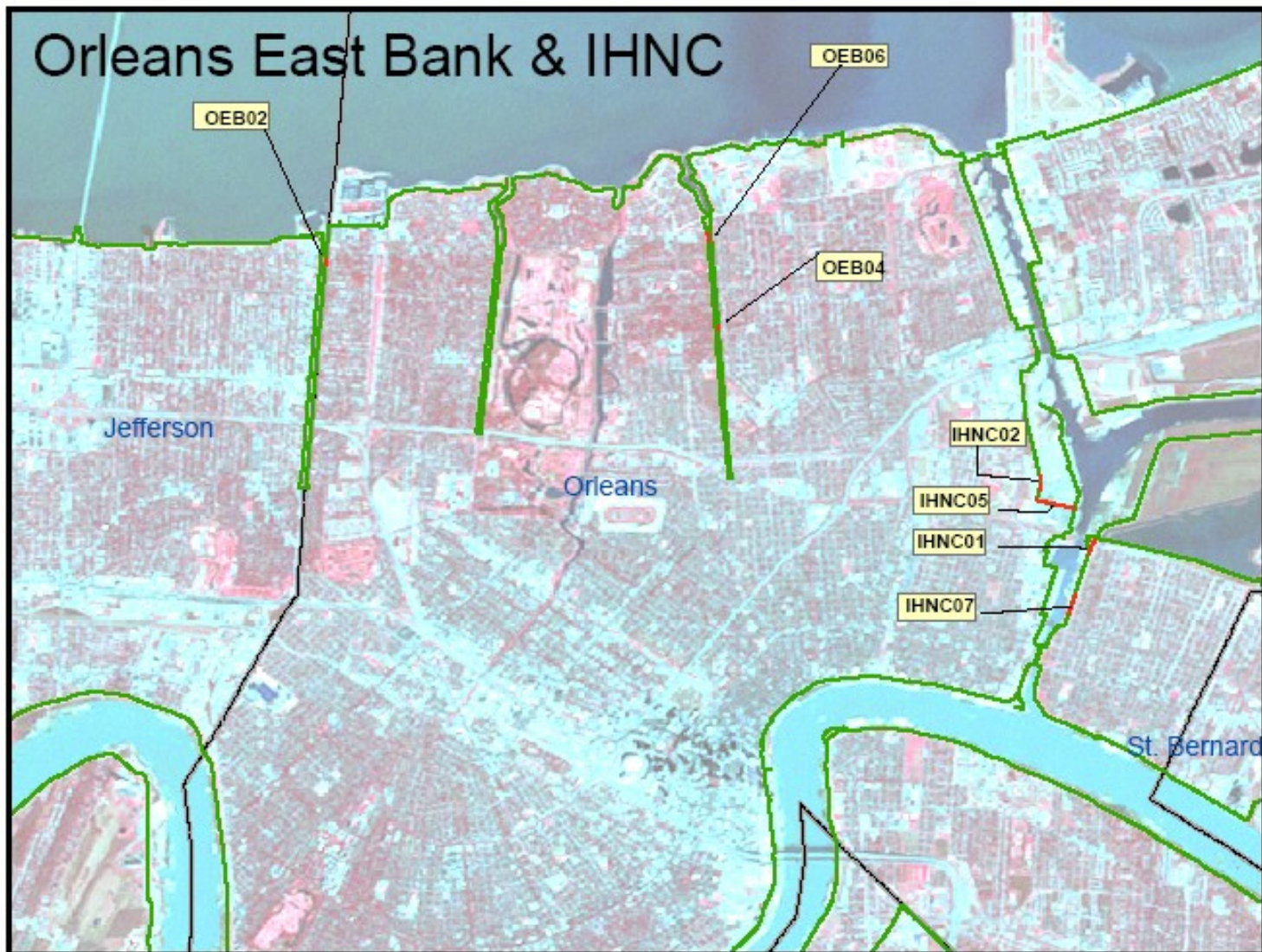
Distribution of Types of Structures



Pre-Katrina vs Authorized Elevations

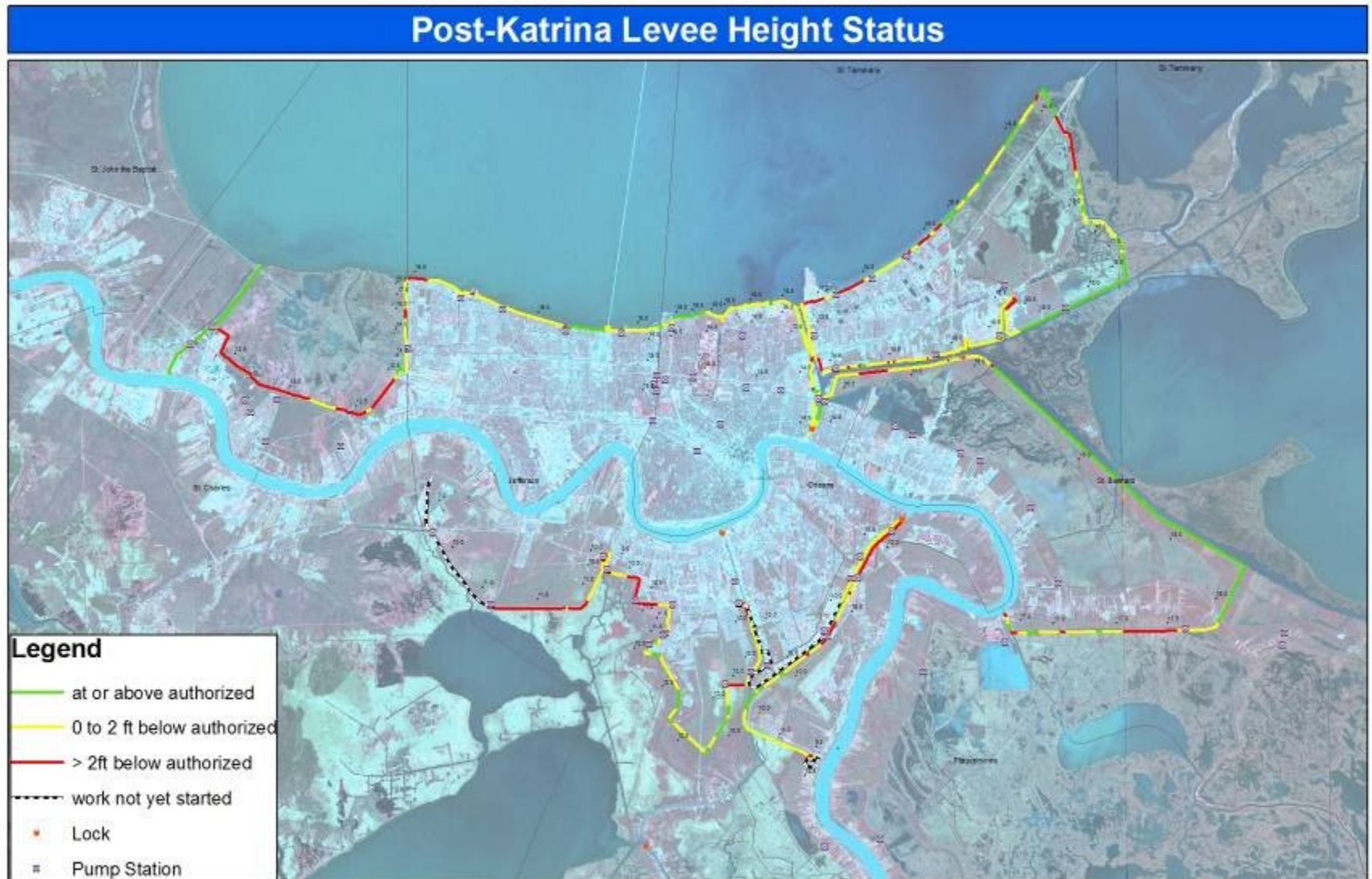


Breach Sites and Characterization



Breach sites in Orleans East Bank & IHNC

Post Katrina vs Authorized Elevations



System Performance

